

Claims

What is Claimed:

1. A method for debugging an application operating within a runtime environment, said method comprising:

creating a hosting process not based on said application;

starting said runtime environment in the hosting process;

attaching a debugger to said hosting process;

subsequent to said acts of creating, starting, and attaching, receiving a request to debug the application; and

in response to receiving said request, loading the application into the hosting process.

2. A method in accordance with claim 1, further comprising preloading selected assemblies into an application domain prior to receiving said request to debug.

3. A method in accordance with claim 1, wherein said runtime environment comprises a hosted runtime environment.

4. A method in accordance with claim 1, wherein said runtime environment comprises a script interpreter.

5. A method in accordance with claim 1, wherein said runtime environment comprises an intermediate language interpreter

6. A method in accordance with claim 1, wherein said runtime environment comprises a .NET compatible runtime environment.

7. A method in accordance with claim 1, further comprising:

creating an application domain within said hosting process for debugging said application.

8. A method in accordance with claim 1, further comprising:

configuring said debugger to a hosting process mode for debugging said application via said hosting process.

9. A method in accordance with claim 1, wherein said runtime environment is hosted by said hosting process.

10. A method in accordance with claim 1, wherein said application is developed in a design-time environment.

11. A method in accordance with claim 10, wherein said design-time environment is a rapid application design environment.

12. A method in accordance with claim 1, wherein performance of said acts of creating, starting and attaching prior to said act of receiving is not perceived by a user.

13. A system for debugging an application operating within a runtime environment, said system comprising:

a hosting process for:

preparing a hosting environment in which said application is debuggable;
and

receiving a request to debug said application, wherein said hosting process is independent of said application;

a debugger for debugging said application via said hosting process; and

a design-time environment for hosting a debugger, wherein said hosting process is created, said runtime environment is started within said hosting process, and said

debugger is attached to said hosting process before said request to debug said application is received by said design-time environment.

14. A system in accordance with claim 13, wherein an application domain is created within said hosting process for debugging said application.
15. A system in accordance with claim 14, wherein selected assemblies are preloaded into said application domain prior to receiving said request to debug.
16. A system in accordance with claim 13, wherein said runtime environment comprises a hosted runtime environment.
17. A system in accordance with claim 13, wherein said runtime environment comprises a script interpreter.
18. A system in accordance with claim 13, wherein said runtime environment comprises an intermediate language interpreter
19. A system in accordance with claim 13, wherein said runtime environment comprises a .NET compatible runtime environment.
20. A system in accordance with claim 13, wherein said design-time environment comprises a rapid application development tool.
21. A system in accordance with claim 13, wherein said hosting process is created, said runtime environment is started within said hosting process, and said debugger is attached to said hosting process before said request to debug said application is received as background operations not perceived by a user of said system.
22. A computer readable medium encoded with a computer program code for directing a computer processor to debugging an application operating within a runtime environment, said program code comprising:
 - a create hosting process code segment for causing said computer processor to create a hosting process not based on said application;

a start runtime code segment for causing said computer processor to start said runtime environment in the hosting process;

an attach debugger code segment for causing said computer processor to attach a debugger to said hosting process;

a receive code segment for causing said computer processor to, subsequent to said acts of creating and attaching, receive a request to debug the application; and

a load application code segment for causing said computer processor to, in response to receiving said request, load the application into the hosting process.

23. A computer readable medium in accordance with claim 22, said program code further comprising:

a preload assembly code segment for causing said computer process to preload selected assemblies into an application domain prior to receiving said request to debug.

24. A computer readable medium in accordance with claim 22, wherein said runtime environment comprises a hosted runtime environment.

25. A computer readable medium in accordance with claim 22, wherein said runtime environment comprises a script interpreter.

26. A computer readable medium in accordance with claim 22, wherein said runtime environment comprises an intermediate language interpreter

27. A computer readable medium in accordance with claim 22, wherein said runtime environment comprises a .NET compatible runtime environment.

28. A computer readable medium in accordance with claim 22, said program code further comprising:

a create application domain code segment for causing said computer processor to create an application domain within said hosting process for debugging said application.

29. A computer readable medium in accordance with claim 22, said program code further comprising:

a configure debugger code segment for causing said computer processor to configure said debugger to a hosting process mode for debugging said application via said hosting process.

30. A computer readable medium in accordance with claim 22, wherein said design-time environment comprises a rapid application development tool.

31. A computer readable medium in accordance with claim 22, wherein said application is developed by a design-time environment.

32. A computer readable medium in accordance with claim 31, wherein said design-time environment is a rapid application design environment.

33. A computer-readable medium in accordance with claim 22, wherein performance of said acts of creating, starting and attaching prior to said act of receiving is not perceived by a user.

34. A software development system comprising:

a development tool that provides a user environment and interface to develop an application, said user environment and interface including a user-operable control to begin debugging; and

a debugging preparation module that:

creates a hosting process not based on said application;

starts, in the hosting process, a runtime environment under which said application is runnable; and

attaches a debugger to said hosting process;

said user-operable control causing said application to be loaded into the hosting process.

35. A system in accordance with claim 34, wherein said development tool comprises a rapid application development tool.

36. A system in accordance with claim 34, wherein said hosting process comprises a hosted runtime environment.

37. A system in accordance with claim 34, wherein said user environment comprises a script interpreter.

38. A system in accordance with claim 34, wherein said user environment comprises an intermediate language interpreter

39. A system in accordance with claim 34, wherein said hosting process comprises a .NET compatible runtime environment.